



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,021	04/04/2001	Wanlie Zheng	6845-28	3772

23973 7590 11/08/2002

DRINKER BIDDLE & REATH
ONE LOGAN SQUARE
18TH AND CHERRY STREETS
PHILADELPHIA, PA 19103-6996

EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
----------	--------------

3743

DATE MAILED: 11/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/826,021

Applicant(s)
Zheng et al.

Examiner
Ljiljana V. Ciric *LJC*

Art Unit
3743



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 25, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Apr 4, 2001 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

Art Unit: 3743

DETAILED ACTION

Election/Restriction

1. This Office action is in response to the election made by applicant in Paper No. 4. In the response, applicant pointed out that claims 1 through 8 were not addressed in the restriction requirement made by the examiner in Paper No. 3.

The examiner acknowledges this fact, and notes that, as part of the aforementioned restriction requirement, Invention I should have been identified as being drawn to claims 1 through 14, but was not due to a typographical error. The examiner hereby restates the corrected restriction requirement, as follows, in order to clarify the record.

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 through 14, drawn to a cold cranking simulator including a heat conveying member, classified in class 73, subclass 54.43.
- II. Claims 15 through 18, drawn to a method of controlling the temperature of a rheological test sample, classified in class 165, subclass 11.1.

3. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus that is Invention I as claimed can, for example, be used to practice a process which, unlike the process

Art Unit: 3743

that is Invention II, lacks the steps of positioning a temperature sensor in monitoring proximity to the test sample receptacle and of controlling the electric current supplied to the heat exchanging element in response to the measured temperature of the receptacle, for example.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and because, for example, the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventor ship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

8. Applicant's election without traverse of Group I, drawn to claims 1 through 14, in Paper No. 4, is acknowledged.

Art Unit: 3743

9. Claims 15 through 18 are hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, i.e., Group II, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 4.

Information Disclosure Statement

10. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, the SAE and ASTM standards cited in page 2 of the specification have not been considered by the examiner.

Drawings

11. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the hybrid heat transfer system as cited in claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Art Unit: 3743

Claim Objections

12. Claims 1 through 14 are objected to because of the following informalities: “member in heat transfer relation to” [claim 1, line 5; claim 9, line 3; claim 9, line 6] should be replaced with “member disposed in heat transfer relation to” for improved clarity and readability without changing the scope of the claims. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 2 through 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 2 as written, it is not clear whether the passages recited in lines 3 and 5 refer to the passages previously recited in claim 1 from which claim 2 depends or to some other passages, thereby rendering indefinite claim 2 and claims 3 through 5 depending therefrom. It is similarly not clear whether the passages recited in each of claims 4 and 5 are or are not the same passages first cited in claim 1, for example. Claims 10 through 13 are similarly indefinite.

With regard to claim 6 as written, it is not clear whether or not the hybrid heat transfer system referred to in the body of the claim is or is not part of the heat transfer apparatus referred to in the preamble of the claim, thereby rendering indefinite claim 6 and claims 7 and 8 depending therefrom with regard to the scope of protection sought. It is furthermore not clear whether the

Art Unit: 3743

combination of the hybrid heat transfer system or the subcombination of the heat transfer apparatus is being claimed.

Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted element is: some element for providing electric current (i.e., an electric current supply) to the thermoelectric module as cited in claim 7.

With regard to claim 9 as written, it is not clear which particular structure corresponds to the limitations “the heat exchanging element responsive to electric current for transferring heat to or from the receptacle” appearing in lines 4-5 of the claim, thereby rendering indefinite claim 9 and all claims depending therefrom. Does the claimed structure comprise a heat exchanging element made of an electrically conductive material or of an electrical heater, for example?

Claims 9 through 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted element is: some element for providing electric current (i.e., an electric current supply) to “the heat exchanging element responsive to electric current for transferring heat to or from the receptacle” as cited in lines 4-5 of claim 9.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural

Art Unit: 3743

cooperative relationships are: the structural cooperative relationship between the temperature control system or the temperature probe and any of the elements of the cold cranking simulator.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

Claim Rejections - 35 U.S.C. § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. As best can be understood in view of the indefiniteness of claims 6 through 8, claims 1 and 6 through 8 are rejected under 35 U.S.C. 102(b) as being anticipated by *Imig et al.*

Imig et al. discloses a heat transfer apparatus essentially as claimed, including a test specimen or sample 11 held by a "receptacle" comprising positioning plates 38 and 38a, a heat conveying member comprising blocks 10 and 10a disposed in heat transfer relation to the "receptacle", the heat conveying member defining at least two internal passages 18 and 19 extending essentially equidistant from one another through at least a portion of the heat conveying member to provide counter-flowing circulation of a fluid, and two electrical heating element cartridges 13 which read broadly on the multi-stage thermoelectric module as claimed.

Art Unit: 3743

The reference thus reads on the claims.

17. Alternately for claims 1 and 6 through 8 and as best can be understood in view of the indefiniteness of claims 6 through 9, and 14, claims 1, 6 through 9, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by *Petersen*.

Petersen discloses the invention essentially as claimed, including a receptacle or vessel 35, a heat conveying member or coil 21, thermoelectric heaters 5 and 11 which read broadly on the multi-stage thermoelectric module as claimed, and a temperature control system including temperature controller 47 and temperature probe 15.

The reference thus reads on the claims.

18. The non-application of art against claims 2 through 5 and 10 through 13 should not be construed as an indication that the claims contain allowable subject matter but rather that the claims could not be examined on the merits due to indefiniteness.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Buechner*, *Spanoudis*, *Adams*, *Blangetti et al.*, *Hamburgen et al.*, *Hobro et al.*, *Visser*, and *Green et al.* each discloses a heat transfer apparatus including liquid cooling of an item in a receptacle associated with the heat transfer apparatus.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925. While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric

Art Unit: 3743

may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 305-3463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

November 1, 2002



LJILJANA V. CIRIC
PRIMARY EXAMINER
ART UNIT 3743